TABLE 4 TO SUBPART DD OF PART 63—TANK CONTROL LEVELS FOR TANKS AT NEW AFFECTED SOURCES AS REQUIRED BY 40 CFR 63.685(B)(2)

Tank design capacity (cubic meters)	Maximum HAP vapor pressure of off-site material managed in tank (kilopascals)	Tank control level
Design capacity less than 38 m^3	Maximum HAP vapor pressure less than 76.6 kPa	Level 1.
Design capacity equal to or greater than 38 m^3 and less than 151 m^3.	Maximum HAP vapor pressure less than 13.1 kPa	Level 1.
	Maximum HAP vapor pressure equal to or greater than 13.1 kPa.	Level 2.
Design capacity equal to or greater than 151 m^3	Maximum HAP vapor pressure less than 0.7 kPa	Level 1.
	Maximum HAP vapor pressure equal to or greater than 0.7 kPa.	Level 2.

Subpart EE—National Emission Standards for Magnetic Tape Manufacturing Operations

SOURCE: 59 FR 64596, Dec. 15, 1994, unless otherwise noted.

§ 63.701 Applicability.

(a) Except as specified in paragraph (b) of this section, the provisions of this subpart apply to:

(1) Each new and existing magnetic tape manufacturing operation located at a major source of hazardous air pollutant (HAP) emissions; and

(2) A magnetic tape manufacturing operation for which the owner or operator chooses to use the provisions of §63.703(b) and (h) to obtain a Federally enforceable limit on its potential to emit HAP.

EXPLANATORY NOTE: A reason the owner or operator would make the choice described in paragraph (a)(2) of this section is if the plant site, without this limit, would be a major source. The owner or operator could use this limit, which would establish the potential to emit from magnetic tape manufacturing operations, in conjunction with the potential to emit from the other HAP emission points at the stationary source, to be an area source. Note, however, that an owner or operator is not required to use the provisions in §63.703(b) and (h) to determine the potential to emit HAP from magnetic tape manufacturing operations.

(b) This subpart does not apply to the following:

(1) Research or laboratory facilities; and

(2) Any coating operation that produces a quantity of magnetic tape that is 1 percent or less of total production (in terms of total square footage coated) from that coating operation in any 12-month period.

(c) The affected source subject to this standard is the magnetic tape manufacturing operation, as defined in §63.702.

(d) An owner or operator of an existing affected source subject to the provisions of this subpart shall comply according to the following schedule:

(1) Within 3 years after the effective date of the standard, if the owner or operator is required to install a new add-on air pollution control device to meet the requirements of §63.703(c) or (g); or

(2) Within 2 years after the effective date of the standard, if a new add-on air pollution control device is not needed to comply with §63.703(c) or (g) of these standards.

(e) The compliance date for an owner or operator of a new affected source subject to the provisions of this subpart is immediately upon startup of the affected source.

(f) The provisions of this subpart apply during periods of startup and shutdown, and whenever magnetic tape manufacturing operations are taking place.

(g) Owners or operators of affected sources subject to the provisions of this subpart shall also comply with the requirements of subpart A as identified in Table 1, according to the applicability of subpart A to such sources.

(h) In any title V permit for an affected source, all research or laboratory facilities that are exempt from the requirements of this subpart shall be clearly identified.

§ 63.702 Definitions.

(a) All terms used in this subpart that are not defined below have the

meaning given to them in the Clean Air Act and in subpart A of this part.

Add-on air pollution control device means equipment installed at the end of a process vent exhaust stack or stacks that reduces the quantity of a pollutant that is emitted to the air. The device may destroy or secure the pollutant for subsequent recovery. Examples are incinerators, condensers, carbon adsorbers, and biofiltration units. Transfer equipment and ductwork are not considered in and of themselves add-on air pollution control devices.

Bag slitter means a device for enclosed transfer of particulates. A bag of raw materials is placed in a hopper, the hopper is closed, and an internal mechanism slits the bag, releasing the particulates into either a closed conveyor that feeds the mix preparation equipment or into the mix preparation equipment itself.

Base substrate means the surface, such as plastic or paper, to which a coating is applied.

Capture efficiency means the fraction of all organic vapors or other pollutants generated by a process that are directed to an add-on air pollution control device.

Capture device means a hood, enclosed room, or other means of collecting HAP vapors or other pollutants into a duct that exhausts to an add-on air pollution control device.

Carbon adsorber vessel means one vessel in a series of vessels in a carbon adsorption system that contains carbon and is used to remove gaseous pollutants from a gaseous emission source.

Car seal means a seal that is placed on a device that is used either to open a closed valve or close an opened valve so that the position of the valve cannot be changed without breaking the seal.

Closed system for flushing fixed lines means a system in which the line to be flushed is disconnected from its original position and connected to two closed containers, one that contains cleaning solvent and one that is empty. Solvent is flushed from the container with cleaning solvent, through the line, and into the empty containers.

Coater or coating applicator means the apparatus used to apply a coating to a continuous base substrate.

Coating application means the process by which the coating mix is applied to the base substrate.

Coating operation means any coater, flashoff area, and drying oven located between a base substrate unwind station and a base substrate rewind station that coats a continuous base substrate.

Control device efficiency means the ratio of the emissions collected or destroyed by an add-on air pollution control device to the total emissions that are introduced to the control device, expressed as a percentage.

Day means a 24-consecutive-hour period.

Drying oven means a chamber that uses heat to bake, cure, polymerize, or dry a surface coating; if the coating contains volatile solvents, the volatile portion is evaporated in the oven.

Enclosed transfer method means a particulate HAP transfer method that uses an enclosed system to prevent particulate HAP from entering the atmosphere as dust. Equipment used for this purpose may include vacuum injection systems or other mechanical transfer systems, bag slitters, or supersacks.

Equivalent diameter means four times the area of an opening divided by its perimeter.

Facility means all contiguous or adjoining property that is under common ownership or control in which magnetic tape manufacturing is performed. The definition includes properties that are separated only by a road or other public right-of-way.

Flashoff area means the portion of a coating operation between the coater and the drying oven where solvent begins to evaporate from the coated base substrate.

Flushing of fixed lines means the flushing of solvent through lines that are typically fixed and are not associated with the cleaning of a tank, such as the line from the mix room to the coater.

Freeboard ratio means the vertical distance from the surface of the liquid to the top of the sink or tank (freeboard height) divided by the smaller of the length or width of the sink or tank evaporative area.

Magnetic coatings means coatings applied to base substrates to make magnetic tape. Components of magnetic coatings may include: Magnetic particles, binders, dispersants, conductive pigments, lubricants, solvents, and other additives.

Magnetic particles means particles in the coating mix that have magnetic properties. Examples of magnetic particles used in magnetic tape manufacturing are: y-oxide, doped iron oxides, chromium dioxide, barium ferrite, and metallic particles that usually consist of elemental iron, cobalt, and/or nickel.

Magnetic tape means any flexible base substrate that is covered on one or both sides with a coating containing magnetic particles and that is used for audio recording, video recording, or any type of information storage.

Magnetic tape manufacturing operation means all of the emission points within a magnetic tape manufacturing facility that are specifically associated with the manufacture of magnetic tape. These include, but are not limited to:

(1) Solvent storage tanks;

(2) Mix preparation equipment;

(3) Coating operations;

(4) Waste handling devices;

(5) Particulate transfer operations;

(6) Wash sinks for cleaning removable parts;

(7) Cleaning involving the flushing of fixed lines;

(8) Wastewater treatment systems; and

(9) Condenser vents associated with distillation and stripping columns in the solvent recovery area, but not including the vent on a condenser that is used as the add-on air pollution control device.

Mill means the pressurized equipment that uses the dispersing action of beads, combined with the high shearing forces of the centrifugal mixing action, to disperse the aggregates of magnetic particles thoroughly without reducing particle size.

Mix preparation equipment means the vessels, except for mills, used to prepare the magnetic coating.

Natural draft opening means any opening in a room, building, or total enclosure that remains open during operation of the facility and that is not connected to a duct in which a fan is installed. The rate and direction of the natural draft through such an opening is a consequence of the difference in pressures on either side of the wall containing the opening.

Nonregenerative carbon adsorber means a carbon adsorber vessel in which the spent carbon bed does not undergo carbon regeneration in the adsorption vessel.

Operating parameter value means a minimum or maximum value established for a control device or process parameter that, if achieved by itself or in combination with one or more other operating parameter values, determines that an owner or operator has complied with an applicable emission limitation or standard.

Overall HAP control efficiency means the total efficiency of the control system, determined by the product of the capture efficiency and the control device efficiency.

Particulate means any material, except uncombined water, that exists as liquid or solid particles such as dust, smoke, mist, or fumes at standard conditions (760 millimeters of mercury, 0 degrees celsius).

Particulate HAP transfer means the introduction of a particulate HAP into other dry ingredients or a liquid solution.

Removable parts cleaning means cleaning of parts that have been moved from their normal position to a wash tank or sink containing solvent for the purpose of cleaning.

Research or laboratory facility means any stationary source whose primary purpose is to conduct research and development to develop new processes and products, where such source is operated under the close supervision of technically trained personnel and is not engaged in the manufacture of products for commercial sale in commerce, except in a de minimis manner.

Separator means a device in the wastewater treatment system in which immiscible solvent is physically separated from the water with which it is mixed.

Solvent storage tanks means the stationary tanks that are associated with magnetic tape operations and that store virgin solvent, spent solvent,

cleaning solvent, solvent at any stage of the solvent recovery process, or any volatile compound. They do not serve a process function.

Solvent recovery area means the collection of devices used to remove HAP emissions from process air, to recover the HAP, and to purify the HAP. Typically, this area contains a control device such as a carbon adsorber or condenser, the wastewater treatment system, and the distillation columns.

Solvent recovery device means, for the purposes of this subpart, an add-on air pollution control device in which HAP is captured rather than destroyed. Examples include carbon adsorption systems and condensers.

Supersack means a container of particulate from the manufacturer or supplier with attached feed tubes and that is used to transfer particulate under the following conditions: the feed tubes are attached directly to the mix preparation equipment, the attachment interface is sealed, and all openings on the mix transfer equipment are closed to the atmosphere.

Temporary total enclosure means a total enclosure that is constructed for the sole purpose of measuring the fugitive emissions from an affected source. A temporary total enclosure must be constructed and ventilated (through stacks suitable for testing) so that it has minimal impact on the performance of the permanent capture system. A temporary total enclosure will be assumed to achieve total capture of fugitive emissions if it conforms to the requirements found in §63.705(c)(4)(i) and if all natural draft openings are at least four duct or hood equivalent diameters away from each exhaust duct or hood. Alternatively, the owner or operator may apply to the Administrator for approval of a temporary enclosure on a case-by-case basis.

Total enclosure means a structure that is constructed around a gaseous emission source so that all gaseous pollutants emitted from the source are collected and ducted through a control device, such that 100 percent capture efficiency is achieved. There are no fugitive emissions from a total enclosure. The only openings in a total enclosure are forced makeup air and exhaust ducts and any natural draft openings such as those that allow raw materials to enter and exit the enclosure for processing. All access doors or windows are closed during routine operation of the enclosed source. Brief, occasional openings of such doors or windows to accommodate process equipment adjustments are acceptable, but if such openings are routine or if an access door remains open during the entire operation, the access door must be considered a natural draft opening. The average inward face velocity across the natural draft openings of the enclosure must be calculated including the area of such access doors. The drying oven itself may be part of the total enclosure. A permanent enclosure that meets the requirements found in §63.705(c)(4)(i) is a total enclosure.

Utilize means the use of HAP that is delivered to mix preparation equipment for the purpose of formulating coatings, the use of any other HAP (e.g., dilution solvent) that is added at any point in the manufacturing process, and the use of any HAP for cleaning activities. Alternatively, annual HAP utilization can be determined as net usage; that is, the HAP inventory at the beginning of a 12-month period, plus the amount of HAP purchased during the 12-month period, minus the amount of HAP in inventory at the end of a 12-month period.

Vacuum injection system means a system in which a vacuum draws particulate from a storage container into a closed system that transfers particulates into the mix preparation equipment.

Volatile organic compound (VOC) means any organic compound that participates in atmospheric photochemical reactions or that is measured by EPA Test Methods 18, 24, or 25A in appendix A of part 60 or an alternative test method as defined in §63.2.

Volatile organic hazardous air pollutant (VOHAP) concentration means the concentration of an individually-speciated organic HAP in a wastewater discharge that is measured by Method 305 of appendix A to 40 CFR part 63.

Waste handling means processing or treatment of waste (liquid or solid) that is generated as a by-product of either the magnetic tape production process or cleaning operations.

Waste handling device means equipment that is used to separate solvent from solid waste (e.g., filter dryers) or liquid waste (e.g., pot stills and thin film evaporators). The solvents are recovered by heating, condensing, and collection.

Wastewater discharge means the water phase that is discharged from the separator in a wastewater treatment system.

Wastewater treatment system means the assortment of devices in which the solvent/water mixture, generated when the carbon bed in the carbon adsorber is desorbed by steam, is treated to remove residual organics in the water.

(b) The nomenclature used in this subpart is defined when presented or has the meaning given below:

(1) A_k = the area of each natural draft opening (k) in a total enclosure, in square meters.

(2) C_{aj} = the concentration of HAP or VOC in each gas stream (j) exiting the emission control device, in parts per million by volume.

(3) C_{bi} = the concentration of HAP or VOC in each gas stream (i) entering the emission control device, in parts per million by volume.

(4) C_{di} = the concentration of HAP or VOC in each gas stream (i) entering the emission control device from the affected source, in parts per million by volume.

(5) C_{fk}= the concentration of HAP or VOC in each uncontrolled gas stream (k) emitted directly to the atmosphere from the affected source, in parts per million by volume.

(6) C_{gv}= the concentration of HAP or VOC in each uncontrolled gas stream entering each individual carbon adsorber vessel (v), in parts per million by volume. For the purposes of calculating the efficiency of the individual carbon adsorber vessel, C_{gv} may be measured in the carbon adsorption system's common inlet duct prior to the branching of individual inlet ducts to the individual carbon adsorber vessels.

(7) C_{hv}= the concentration of HAP or VOC in the gas stream exiting each individual carbon adsorber vessel (v), in parts per million by volume.

(8) E = the control device efficiency achieved for the duration of the emission test (expressed as a fraction).

(9) F = the HAP or VOC emission capture efficiency of the HAP or VOC capture system achieved for the duration of the emission test (expressed as a fraction).

(10) FV = the average inward face velocity across all natural draft openings in a total enclosure, in meters per hour.

(11) G = the calculated mass of HAP per volume of coating solids (in kilograms per liter) contained in a batch of coating.

(12) H_v= the individual carbon adsorber vessel (v) efficiency achieved for the duration of the emission test (expressed as a fraction).

(13) H_{sys}= the efficiency of the carbon adsorption system calculated when each carbon adsorber vessel has an individual exhaust stack (expressed as a fraction).

(14) L_{si}= the volume fraction of solids in each batch of coating (i) applied as determined from the formulation records at the affected source.

(15) M_{ci}= the total mass in kilograms of each batch of coating (i) applied, or of each coating applied at an affected coating operation during a 7-day period, as appropriate, as determined from records at the affected source. This quantity shall be determined at a time and location in the process after all ingredients (including any dilution solvent) have been added to the coating, or if ingredients are added after the mass of the coating has been determined, appropriate adjustments shall be made to account for them.

(16) M_r= the total mass in kilograms of HAP or VOC recovered for a 7-day period.

(17) Q_{aj}= the volumetric flow rate of each gas stream (j) exiting the emission control device in either dry standard cubic meters per hour when EPA Method 18 in appendix A of part 60 is used to measure HAP or VOC concentration or in standard cubic meters per hour (wet basis) when EPA Method 25A is used to measure HAP or VOC concentration.

(18) Q_{bi}= the volumetric flow rate of each gas stream (i) entering the emission control device, in dry standard cubic meters per hour when EPA Method 18 is used to measure HAP or VOC

concentration or in standard cubic meters per hour (wet basis) when EPA Method 25A is used to measure HAP or VOC concentration.

(19) Q_{di}= the volumetric flow rate of each gas stream (i) entering the emission control device from the affected source in either dry standard cubic meters per hour when EPA Method 18 is used to measure HAP or VOC concentration or in standard cubic meters per hour (wet basis) when EPA Method 25A is used to measure HAP or VOC concentration.

(20) Q_{fk}= the volumetric flow rate of each uncontrolled gas stream (k) emitted directly to the atmosphere from the affected source in either dry standard cubic meters per hour when EPA Method 18 is used to measure HAP or VOC concentration or in standard cubic meters per hour (wet basis) when EPA Method 25A is used to measure HAP or VOC concentration.

(21) Q_{gv}= the volumetric flow rate of each gas stream entering each individual carbon adsorber vessel (v) in either dry standard cubic meters per hour when EPA Method 18 is used to measure HAP or VOC concentration or in standard cubic meters per hour (wet basis) when EPA Method 25A is used to measure HAP or VOC concentration. For purposes of calculating the efficiency of the individual carbon adsorber vessel, the value of Q_{gv} can be assumed to equal the value of Q_{hv} measured for that carbon adsorber vessel.

(22) Q_{hv}= the volumetric flow rate of each gas stream exiting each individual carbon adsorber vessel (v) in either dry standard cubic meters per hour when EPA Method 18 is used to measure HAP or VOC concentration or in standard cubic meters per hour (wet basis) when EPA Method 25A is used to measure HAP or VOC concentration.

(23) Q_{in} i = the volumetric flow rate of each gas stream (i) entering the total enclosure through a forced makeup air duct in standard cubic meters per hour (wet basis).

(24) Q_{out} j = the volumetric flow rate of each gas stream (j) exiting the total enclosure through an exhaust duct or hood in standard cubic meters per hour (wet basis).

(25) R = the overall HAP or VOC emission reduction achieved for the duration of the emission test (expressed as a percentage).

(26) RS_i = the total mass in kilograms of HAP or VOC retained in the coated substrate after oven drying for a given magnetic tape product.

(27) V_{ci} = the total volume in liters of each batch of coating (i) applied as determined from records at the affected source.

(28) W_{oi} = the weight fraction of HAP or VOC in each batch of coating (i) applied, or of each coating applied at an affected coating operation during a 7-day period, as appropriate, as determined by EPA Method 24 or formulation data. This value shall be determined at a time and location in the process after all ingredients (including any dilution solvent) have been added to the coating, or if ingredients are added after the weight fraction of HAP or VOC in the coating has been determined, appropriate adjustments shall be made to account for them.

§ 63.703 Standards.

(a) Each owner or operator of any affected source that is subject to the requirements of this subpart shall comply with the requirements of this subpart on and after the compliance dates specified in § 63.701.

(b)(1) The owner or operator subject to § 63.701(a)(2) shall determine limits on the amount of HAP utilized (see definition) in the magnetic tape manufacturing operation as the values for the potential to emit HAP from the magnetic tape manufacturing operation.

(2) The limits on the amount of HAP utilized in the magnetic tape manufacturing operations shall be determined in the following manner.

(i) The potential to emit each HAP from each emission point at the stationary source, other than those from magnetic tape manufacturing operations, shall be calculated and converted to the units of Mg/yr (or tons/yr).

(ii) The limits on the HAP utilized in the magnetic tape manufacturing operation shall be determined as the values that, when summed with the values in paragraph (b)(2)(i) of this section, are less than 9.1 Mg/yr (10 tons/yr) for each individual HAP and 22.7 Mg/yr (25 tons/yr) for the combination of HAP.